RULE 1634. PILOT CREDIT GENERATION PROGRAM FOR TRUCK STOPS

(a) Purpose

The purpose of this rule is to provide opportunities to generate NO_x mobile source emission reduction credits (MSERCs) for use in RECLAIM through the use of electric power in lieu of the operation of diesel-powered engines for truck cabs, and/or trailer refrigeration units.

(b) Applicability

- (1) This rule applies to persons who voluntarily elect to generate NO_x MSERCs, which may be used in RECLAIM pursuant to Rule 2008 Mobile Source Credits, through the use of electric power instead of operating diesel-powered engines at truck stops for:
 - (A) trailer refrigeration units to operate in electric standby mode;
 - (B) on-board electrical systems; or
 - (C) heating, ventilating, and air conditioning (HVAC) to truck cabs at truck stops.
- (2) This rule does not apply to any:
 - (A) emission reductions produced by monies from any public air quality related funding program including but not limited to Rule 2202, the Carl Moyer Memorial Air Quality Standards Attainment Program, or AB2766 funding;
 - (B) emission reductions required pursuant to any law, rule, or regulation, or legal instrument such as a legal settlement or consent decree; or
 - (C) truck cab or chassis equipped with auxiliary power units.

(c) Definitions

(1) ACTIVITY LEVEL (AL) means for the purpose of this rule, the number of hours and the kilowatt-hours (kW-hr) electric power is supplied at a truck stop for the purposes of providing electric power to provide HVAC to the truck cab, operate on-board electric systems, and operate trailer

- refrigeration units in electric standby mode per quarter for retrospective credit issuance and per year for prospective credit issuance.
- (2) APPLICATION means for the purpose of this rule, the Rule 1634 MSERC Application as specified in subdivision (e).
- (3) AUXILIARY ENGINE means an off-road diesel-fueled engine less than 100 horsepower which is used to power a trailer refrigeration unit.
- (4) AUXILIARY POWER UNIT means any device powered by a small dieselfueled engine externally mounted on the truck cab or chassis which is designed to provide heat and electric power for air conditioning and onboard electrical systems.
- (5) BASELINE EMISSION FACTOR (EF_{base}) means for the purpose of this rule, the emission factor used to quantify annual emissions from a diesel-fueled engine used to supply power to a trailer refrigeration unit or for truck idling.
- (6) CREDIT GENERATOR means the entity that has the rights through direct ownership, agreement, or contract to provide electric energy to truck operators while at truck stops in order to operate their on-board electric systems and trailer refrigeration units in electric standby mode, and provide HVAC to the truck cab, or if no agreement or contract exists, the operator of the truck stop.
- (7) CREDIT GENERATION PERIOD means for the purpose of this rule, the timeframe that MSERCs are being generated and begins on the date that the requirements of subdivision (d) are met. The first segment of the credit generation period, which may be 3 months or less, is referred to as the "initial credit generation period" and each 3-month segment thereafter that begins on a calendar quarter is referred to as the "quarterly credit generation period." The "first two annual credit generation periods" is the first eight full quarterly credit generation periods.
- (8) CREDIT ISSUANCE PERIOD means the timeframe that MSERCs are issued and begins on the date that the requirements of subdivision (h) are met.
- (9) DIESEL FUEL means any fuel that is commonly known as diesel fuel No. 1-D or 2-D, or meets the specifications in ASTM D 975, Standard Specifications for Diesel Fuel Oils.

- (10) DISTRICT means the geographical area defined by Rule 103 Definition of Geographical Area.
- (11) ELECTRIC STANDBY MODE means the operation of a trailer refrigeration unit using an electric motor powered by electricity supplied at a truck stop.
- (12) EVALUATION YEAR means for the purpose of this rule, 2006 which represents the initial evaluation year and subsequent years thereafter as determined pursuant to paragraph (g)(3) during which the AQMD, CARB, and EPA will assess whether MSERCs may continue to be generated or if a portion or all future MSERCs need to be discontinued or discounted to ensure credits remain surplus.
- (13) HEATING, VENTILATING, AND AIR CONDITIONING (HVAC) means for the purpose of this rule, pre-conditioned air which is heated or cooled from an external source powered by electricity and used to provide a comfortable environment for the inside space of a truck cab.
- (14) IN-CAB APPLIANCE means any electric-powered device used for comfort or personal use including, but not limited, to heaters, fans, air conditioners, microwaves, televisions, personal computers, stereos, and refrigerators.
- (15) MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) means for the purpose of this rule, emission reduction credits that meet the requirements of this rule and are issued as specified in paragraph (h)(2).
- (16) ON-BOARD ELECTRICAL SYSTEM means any in-cab appliance or electric-powered device installed in a truck such as an electric engine block heater which is capable of being operated on 110 Volts AC power from an external plug-in source.
- (17) OPTIONAL EMISSION FACTOR (EF_{opt}) means for the purpose of this rule, the emission factor used to quantify annual emissions from the use of electric power at a truck stop to operate trailer refrigeration units in electric standby mode, on-board electrical systems, and by providing HVAC to the truck cab and is based on either an in-Basin power generation emission factor of 0.1 grams per kilowatt-hour or 0.0 grams per kilowatt-hour if onsite generation using zero-emission technologies is used.
- (18) PROSPECTIVE CREDIT ISSUANCE OR PROSPECTIVELY means that MSERCs will be issued annually prior to generating credits.

- (19) QUARTER OR QUARTERLY is any three-month period from January 1 to March 31, April 1 to June 30, July 1 to September 30, or October 1 to December 31, inclusive.
- (20) RECLAIM FACILITY means any stationary source subject to Regulation XX, pursuant to Rule 2001 Applicability.
- (21) RETIRE OR RETIRED means that the credit, regardless of the expiration date of the credit, can no longer be transferred or used.
- (22) RETROSPECTIVE CREDIT ISSUANCE OR RETROSPECTIVELY means that MSERCs will be issued quarterly following submittal of the actual activity level specified in paragraph (i)(1) and the quarterly validation has been completed pursuant to subdivision (k).
- (23) SURPLUS means that emission reductions achieved throughout the duration of the emission reduction activity that are not required or relied upon by any local, state, or federal rule, or regulation, and the federal Clean Air Act; and are not required or relied upon in an attainment demonstration, reasonable further progress demonstration, or emissions inventory thereby ensuring that there is no double counting of emission reductions.
- (24) TRUCK means an on-road Class 8 heavy-duty diesel-fueled vehicle having a gross vehicle weight of greater than 33,000 pounds.
- (25) TRUCK ENGINE means an on-road diesel-fueled engine used to supply power to a truck for propulsion.
- (26) TRUCK OPERATOR means the person that operates the truck.
- (27) TRUCK STOP means a for-profit facility that provides parking spaces and other services for trucks and their drivers.
- (28) TRAILER REFRIGERATION UNIT means a refrigeration chiller powered by a diesel-fueled auxiliary engine or electric motor that is mounted on a trailer container for the purpose of providing chilled air to the contents of the trailer. For purposes of this rule, trailer refrigeration units use engines that are separate from the truck engine.
- (29) ZERO-EMISSION TECHNOLOGIES mean any source of electrical power that does not produce NO_x emissions such as fuel cells and solar power.

(d) Credit Generator Requirements

(1) Any person that elects to generate MSERCs under this rule shall meet one or more of the following requirements:

- (A) Provide electric power while the truck engine is off and is parked at a truck stop to operate on-board electrical systems;
- (B) Provide heating, ventilating, and air conditioning (HVAC) to truck cabs while the truck engine is off and is parked at a truck stop; or
- (C) Provide electric power to power a trailer refrigeration unit while an auxiliary diesel engine is off and its truck and trailer are parked at a truck stop.
- (2) In addition to paragraph (d)(1), any person that elects to generate MSERCs under this rule shall meet all of the following requirements:
 - (A) Demonstrate that the infrastructure, which includes a stationary ground power supply and transmission system necessary to provide electric power at the proper frequency and voltage at a truck stop for use by in-cab truck appliances, on-board systems, or trailer refrigeration units operating in electric standby mode, is installed no earlier than October 1, 2001;
 - (B) Demonstrate that the infrastructure, which includes an external device for supplying pre-conditioned air for HVAC for cooling and heating truck cabs at truck stops, is installed no earlier than October 1, 2001;
 - (C) Demonstrate that the credit generator has the right through direct ownership or an agreement or contract to provide electric energy or HVAC to heavy-duty trucks parked at the truck stop;
 - (D) Demonstrate that each truck stop is equipped with an electronic system capable of recording the location, date, time, truck operator, truck license number, and the number of hours electric power is consumed and the amount of energy consumed to operate on-board electrical systems, trailer refrigeration units, and provide HVAC to the truck cab per truck visit;
 - (E) Demonstrate that each truck stop is equipped with a totalizing hour and kilowatt-hour meter or electronic system capable of measuring the number of hours electric power is consumed in half hour increments and the amount of electric power consumed to operate on-board electrical systems, trailer refrigeration units, and provide HVAC to the truck cab per truck visit;
 - (F) Demonstrate that the truck stop is located in the District;

- (G) Submit an Application as specified in subdivision (e);
- (H) Demonstrate compliance with the monitoring, recordkeeping, and reporting requirements specified in subdivision (i);
- (I) Demonstrate that any on-site generation of electric power used to provide power for any of the requirements in paragraph (d)(1) is supplied by solar power or fuel cells; and
- (J) Charge an hourly service fee to each truck operator for the use of any service specified in subparagraphs (d)(1)(A) or (d)(1)(B) that is greater than or equal to \$1.00 per hour.

(e) Application

- (1) Any person that elects to generate MSERCs under this rule shall submit an Application to the District after adoption of this rule and no later than 30 days after installation of the necessary infrastructure pursuant to subparagraphs (d)(2)(A) or (d)(2)(B). No Applications may be submitted after January 1, 2004. The Application shall include the following:
 - (A) A description of the truck stop, including at a minimum:
 - (i) location of the truck stop; and
 - (ii) facility plot plan including locations and total number of truck parking stalls identifying those which will be used to provide electric power and HVAC.
 - (B) The projected initial service date that the credit generator will provide electrical power and HVAC to trucks that would represent the beginning of the credit generation period;
 - (C) Specification of whether zero-emission technologies are used to provide electrical power for the project; and
 - (D) Identification of the intended user(s) of the MSERCs, if available.
- (2) If the initial installation of the infrastructure specified in subparagraphs (d)(2)(A) or (d)(2)(B) is before the Application is approved, the Application shall include the following additional information:
 - (A) Proof of installation of the infrastructure specified in subparagraphs (d)(2)(A) or (d)(2)(B);
 - (B) Proof the credit generator has the right through direct ownership or an agreement or contract to provide electric power and HVAC to heavy-duty trucks and trailer refrigeration units at truck stops.

- (3) The Application shall be deemed a plan, and plan fees shall be assessed in accordance with Rule 309 Fees for Regulation XVI.
- (4) The Executive Officer shall approve or disapprove the Application and any subsequent revisions submitted pursuant to paragraph (e)(5), in writing within 90 days of submittal of a complete Application or Application revision.
- (5) Any person that submits an Application may amend the Application to:
 - (A) revise information provided under subparagraphs (e)(1)(A) through (e)(1)(D) at any time;
 - (B) include information required under subparagraphs (h)(4)(A) and (h)(4)(B) if the credit generator elects to have MSERCs issued prospectively after the first two annual credit generation periods; or
 - (C) revise the activity levels specified in subparagraph (h)(4)(B) no later than 180 days after the beginning eligibility credit issuance date pursuant to subparagraph (h)(2)(C).

(f) MSERC Quantification

(1) MSERCs generated under subparagraphs (d)(1)(A) and (d)(1)(B) shall be quantified using the following equation:

$$MSERC = \frac{\left[(EF_{base})(AL_{hr}) - (EF_{opt})(AL_{kW-hr}) \right]}{454}$$

Where:

MSERC = Mobile source emission reduction credit (pounds of NO_x)

 EF_{base} = Baseline emission factor (g/hr)

 EF_{opt} = Optional emission factor (g/kW-hr)

 AL_{hr} = Activity level (hr) AL_{kW-hr} = Activity level (kW-hr)

= Conversion factor from grams to pounds

(2) MSERCs generated under subparagraph (d)(1)(C) shall be quantified using the following equation:

$$MSERC = \frac{\left(EF_{base} EF_{opt}\right) \times AL}{454}$$

Where:

MSERC = Mobile source emission reduction credit (pounds of NO_x)

 EF_{base} = Baseline emission factor (g/kW-hr) EF_{opt} = Optional emission factor (g/kW-hr)

AL = Activity level (kW-hr)

454 = Conversion factor from grams to pounds

- (3) The value of the NO_x baseline emission factor for paragraph (f)(1) shall be 80.7 g/hr.
- (4) The value of the NO_x baseline emission factor for paragraph (f)(2) shall be 4.7 g/kW-hr or if the credit generator elects to use a different value, the value shall be based on 92 percent of NO_x + nonmethane hydrocarbon (NMHC) EPA certified emission level pursuant to 40 CFR Part 89.112 and Subparts D and E for each diesel-fueled auxiliary engine.
- (5) The value of the NO_x optional emission factors for paragraphs (f)(1) and (f)(2) shall be equal to:
 - (A) 0.1 g/kW-hr; or
 - (B) 0.0 g/kW-hr if the electric power is provided from zero-emissions technologies.
- (6) The actual activity level used to quantify the MSERCs shall be determined pursuant to subdivision (i) and either the quarterly validation if credits are issued retrospectively or twelve-month reconciliation if credits are issued prospectively pursuant to subdivision (k).

(g) Source Category Evaluation

- (1) On or before July 1, 2006, the Executive Officer with CARB and EPA shall complete an evaluation of truck idling and truck and trailer refrigeration units and agree whether future MSERCs need to be discontinued or discounted to ensure credits remain surplus.
- (2) The evaluation shall include, but is not limited to, an assessment of current and future local, state, and federal rules and regulations affecting truck idling and truck and trailer refrigeration units at truck stops as well as an evaluation of the baseline emission factor to reflect current information.

- (3) After the initial evaluation, the evaluation performed in paragraph (g)(1) shall be completed on a timeframe as agreed to by the AQMD, CARB, and EPA, but not more than once per year.
- (4) Subsequent evaluations performed pursuant to paragraph (g)(3) shall be completed at least six months prior to end of each evaluation period specified in paragraph (g)(3), for the remainder of the pilot program.
- (5) No future MSERCs shall be issued if the evaluation is not completed or the AQMD, CARB and EPA do not agree on whether future MSERCs need to be discontinued or the amount that the MSERCs need to be discounted.

(h) Credit Issuance

- (1) The Executive Officer shall issue MSERCs provided:
 - (A) the Application has been approved by the Executive Officer;
 - (B) the credit generator has submitted the information specified in subparagraphs (e)(2)(A) and (e)(2)(B);
 - (C) the credit generator has submitted records and reports pursuant to subdivision (i); and
 - (D) the Executive Officer has completed the quarterly validation of the activity level pursuant to subdivision (k) if the MSERCs are issued retrospectively pursuant to paragraph (h)(3).
- (2) The Executive Officer shall issue MSERCs:
 - (A) to the credit generator that meets the applicability requirements pursuant to subdivision (b) and the requirements pursuant to subdivision (d);
 - (B) retrospectively through the first two annual credit generation periods pursuant to paragraph (h)(3);
 - (C) either retrospectively for subsequent quarters following the end of the first two annual credit generation periods pursuant to paragraph (h)(3) or prospectively for subsequent annual credit generation periods following the end of the first two annual credit generation periods pursuant to paragraph (h)(4); and
 - (D) designated with a beginning and ending date based on the date of credit issuance.
- (3) The Executive Officer shall issue MSERCs retrospectively in quarterly increments, in pounds of NO_x :

- (A) for each quarter through the end of the first two annual credit generation periods;
- (B) for subsequent quarterly credit generation periods following the end of the first two annual credit generation periods if the credit generator elects to continue retrospective credit issuance and has not submitted a written request to the Executive Officer pursuant to subparagraph (h)(4)(A) to issue MSERCs prospectively;
- (C) for any quarterly generation period between the end of the first two annual credit generation periods and the next annual credit generation period that coincides with either the RECLAIM Compliance Cycle 1 or 2 as designated by the credit generator pursuant to paragraph (h)(7) if the credit generator elects to have MSERCs issued prospectively; and
- (D) after the Executive Officer completes the quarterly validation pursuant to subdivision (k) and within 30 days after the submittal of the actual activity level pursuant to paragraph (i)(2).
- (4) The Executive Officer shall issue MSERCs prospectively in annual increments, in pounds of NO_x:
 - (A) following the end of the first two annual credit generation periods and each annual credit generation period thereafter for a period not to exceed five years, provided the credit generator submits a written request to amend the Application for prospective credit issuance and designation of the RECLAIM Compliance Cycle for each annual credit generation period to the Executive Officer within 30 days after the end of the first two annual credit generation periods;
 - (B) in an amount based on an activity level as specified by the credit generator that is included in an amendment to their Application, that shall not exceed 120% of the annual average activity level that was reported and validated through the first two annual credit generation periods; and
 - (C) beginning on either a RECLAIM Cycle 1 or 2, as designated by the credit generator pursuant to subparagraph (h)(4)(A).
- (5) The Executive Officer shall discount MSERCs upon issuance by:
 - (A) nine percent which will be retired for the benefit of the environment; and

- (B) one percent which will either fund the Rule 518.2 Federal Alternative Operating Conditions offset program, or if Rule 518.2 funding is not needed, be retired for the benefit of the environment.
- (6) Any reductions other than NO_x that results from implementation of projects subject to this rule shall be retired for the benefit of the environment and ineligible for transfer or use.
- (7) Notwithstanding Rule 2008 Mobile Source Credits, for MSERCs issued retrospectively pursuant to paragraph (h)(3), MSERCs converted to RTCs shall be issued for the RECLAIM Compliance Cycle 1 or 2 that the credit generator selects provided the initial or quarterly credit generation period and subsequent quarterly credit generation period coincides with the entire RECLAIM Compliance Cycle plus the reconciliation period of that cycle.
- (8) Notwithstanding Rule 2008 Mobile Source Credits, for MSERCs issued prospectively pursuant to paragraph (h)(4), MSERCs converted to RTCs shall be issued for either RECLAIM Compliance Cycle 1 or 2 provided that each annual credit generation period coincides with the entire cycle selected. If the initial credit generation period begins prior to the start of a complete RECLAIM Compliance Cycle, that portion of MSERCs converted to RTCs shall be issued for the current or previous cycle provided that this initial credit generation period completely coincides with the cycle selected.
- (9) Any MSERCs not used by the specified expiration date shall be retired to benefit the environment and be ineligible for transfer or use.

(i) Monitoring, Recordkeeping, and Reporting

- (1) For each truck that uses electric energy at a truck stop to operate trailer refrigeration units in electric standby mode, power on-board electric systems, and/or is provided with HVAC to the truck cab, credit generators shall monitor and maintain records for the initial and each subsequent quarterly credit generation periods of the following:
 - (A) Number of hours in half-hour increments rounded to the nearest half-hour that the diesel-powered truck engine is not operated while electric energy is consumed to power on-board electric systems and/or HVAC for the interior cab, using an electronic system capable of recording the location, date, time, truck operator, and truck license number per truck visit;

- (B) Number of kilowatt-hours (kW-hr) of electric energy supplied to the truck for use by on-board electric systems and/or HVAC that is supplied to the interior cab, using data recorders capable of recording the location, date, time, the hourly service fee, a written certification that the service fee charged to each truck operator meets the requirements specified pursuant to subparagraph (d)(2)(J), truck operator, truck license number, and energy consumption in kilowatt-hours (kW-hr);
- (C) Numbers of kilowatt-hours (kW-hr) that each trailer refrigeration unit consumes while in electric standby mode using a kilowatt-hour meter or electronic system capable of measuring and recording the electric power supplied in kilowatt hours (kW-hr); and
- (D) For those credit generators electing to use a different value of the baseline emission factor for paragraph (f)(2) other than the default value of 4.7 g/kW-hr, identification of the existing diesel-fueled engine used to power the trailer refrigeration unit, including engine manufacturer, engine model, engine model year, engine displacement, engine horsepower, and EPA certified emission factor.
- (2) Within 30 days after the end of the initial and each subsequent quarterly credit generation period if credits are issued retrospectively, and within 30 days after the end of each twelve-month credit generation period if credits are issued prospectively, the credit generator shall submit the activity level specified in paragraph (i)(1).
- (3) Notwithstanding paragraph (i)(2), if the initial credit generation period begins prior to a quarter and is two months or less, the credit generator shall submit the information specified in paragraph (i)(1) within 30 days after the end of the first quarterly credit generation period. For an initial credit generation period that is greater than two months, the credit generator shall submit the information specified in paragraph (i)(1) within 30 days after the end of the initial credit generation period.
- (4) The credit generator shall maintain all data required to be gathered, computed, or reported pursuant to this rule for five years after each quarterly report is submitted to the District.

(5) The monitoring devices specified in subparagraphs (i)(1)(A) and (i)(1)(B) may be combined into one system and may record the data from more than one parking space provided the requirements of subparagraphs (i)(1)(A) and (i)(1)(B) are met.

(j) Credit Use

MSERCs generated under this rule may be used as RTCs under the provisions of Regulation XX – Regional Clean Air Incentive Market (RECLAIM).

(k) Quarterly Validation and Reconciliation

- (1) For MSERCs issued retrospectively pursuant to paragraph (h)(3), the reported activity level submitted pursuant to paragraphs (i)(2) and (i)(3) shall be reviewed by the Executive Officer upon submittal to validate the activity level. If the review indicates that the activity level reported is not consistent with records specified in paragraph (i)(1), the Executive Officer shall appropriately adjust the activity level reported.
- (2) The Executive Officer shall validate the activity level reported based on the analysis specified under paragraphs (k)(1) within 30 days after the reported activity level is submitted pursuant to paragraphs (i)(2) and (i)(3) for MSERCs issued retrospectively.
- (3) For MSERCs issued prospectively pursuant to paragraph (h)(4), the actual activity level submitted pursuant to paragraph (i)(2) shall be reviewed upon submittal to evaluate if any shortfall exists between the actual activity level and activity level specified by the credit generator pursuant to subparagraph (h)(4)(B).
- (4) If a shortfall exists between the actual and projected activity levels, the credit generator and user are subject to the penalty provisions specified under subdivision (1).
- (5) If the actual activity level exceeded the activity level specified by the credit generator pursuant to subparagraph (h)(4)(B), then the Executive Officer shall after performing the evaluation required by paragraph (k)(3) issue additional MSERCs equal to the amount of the increase and pursuant to subdivision (h) for use in the current RECLAIM Compliance Cycle that ends no later than six months from the last day of the credit generation period of which the increase in activity level occurred.

(l) Penalties

- (1) If a shortfall exists pursuant to paragraph (k)(3), credits equal to 110 percent of the shortfall shall be obtained and surrendered to the Executive Officer such that the applicant shall retire NO_x MSERCs generated under the same or different Application or RTCs that are approved and designated for use within the same RECLAIM cycle or if not available, from the next RECLAIM cycle.
- (2) Any person submitting an Application who falsifies information in the Application, fails to implement any provision of the Application, or fails to charge the minimum service fee as specified in subparagraph (d)(2)(J) shall be subject to the penalties specified in the Health and Safety Code for violation of District rules and shall be grounds for the Executive Officer to take one or more of the following actions:
 - (A) disapprove the Application and void all previously issued MSERCs, and those already converted to RTCs, that have not yet expired;
 - (B) designate the applicant to be ineligible to generate MSERCs; or
 - (C) access the penalty specified in paragraph (1)(1).
- (3) Any person who uses MSERCs converted into RTCs generated under this rule at a RECLAIM facility where previously issued MSERCs, and those already converted to RTCs, that have not yet expired are voided, shall be subject to the provisions specified in Rule 2010 Administrative Remedies and Sanctions for RECLAIM rule violations. If there are multiple credit holders or users of credits generated under the same Application, each holder or user shall retire MSERCs or RTCs according to their prorated share of credits purchased.

(m) Program Review

(1) On or before April 2003 and biannually thereafter, up until credits are discontinued according to the source category evaluation performed pursuant to subdivision (g), the Executive Officer shall complete a review and present a report to the Governing Board that includes but not be limited to the following information:

- (A) General description of projects participating in the pilot program and the amount of NO_x MSERCs, including the amount converted to RTCs, generated under the pilot program;
- (B) The location of the credit generation projects and facilities using RTCs under this pilot program;
- (C) The amount of NO_x MSERCs retired to benefit the environment;
- (D) The amount of concurrent non-NO_x emission reductions such as PM and toxic air contaminants, generated under the pilot program that have been retired to benefit the environment; and
- (E) Identification of compliance and implementation issues, if any, associated with credit generation projects.